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Report of the Economic Commission for Europe on regional statistical development

Note by the Secretary-General

In accordance with Economic and Social Council decision 2016/220 and past practice, the Secretary-General has the honour to transmit the report of the Economic Commission for Europe (ECE) on regional statistical development. In its report, ECE sets out the major statistical activities in the ECE region that may be of interest to the global statistical community, provides an overview of the work undertaken by the Conference of European Statisticians on emerging topics in statistics and describes progress made in regional statistical work in response to internationally agreed development goals and policy frameworks. The Statistical Commission is invited to comment on the work undertaken in the ECE region and to identify synergies and opportunities for interregional exchange of experiences.

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Report of the Economic Commission for Europe on regional statistical development

I. Introduction

1. At its forty-seventh session, held from 8 to 11 March 2016, the Statistical Commission requested the Economic Commission for Europe (ECE) to submit a report on statistical development in the ECE region[1] to the Commission at its forty-eighth session, to be held from 7 to 10 March 2017.

2. In the present report, ECE sets out the major statistical activities in the ECE region that may be of interest to the global statistical community. In the report, ECE provides an overview of the work undertaken by the Conference of European Statisticians on emerging topics in statistics, including measurement of the value of official statistics, guidance on common elements of statistical legislation to strengthen the legal and institutional frameworks of official statistics, measurement of human capital, poverty and entrepreneurship, and exchange of economic data.

3. The main achievements of the High-level Group for the Modernization of Official Statistics of ECE in the modernization of official statistics are described. ECE also describes progress made in regional statistical work in response to internationally agreed development goals and policy frameworks, such as the Sustainable Development Goals, the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC) and the Sendai Framework for Disaster Risk Reduction 2015-2030.

4. The objective of the statistical work programme of ECE is to improve the quality of official statistics at the national and international levels in support of evidence-based policymaking and assessing progress towards the achievement of internationally agreed development goals. The coordination of international statistical activities undertaken in the region is steered by the Conference of European Statisticians[2] and its Bureau. The coordination of statistical work in Europe has its roots in the League of Nations. The first Conference on Statistics was held in Geneva in 1928 and led to a series of meetings of statistical experts.

5. The ECE region consists of countries with diverse levels of economic, social and statistical development. Twenty-eight of its member States are members of the European Union. Many member countries of the Organization for Economic Cooperation and Development (OECD) are included in the ECE region, and, since the mid-1990s, all member countries of OECD participate in the work of the Conference of European Statisticians. The countries of Eastern Europe, the Caucasus and Central Asia are supported by the Interstate Statistical Committee of the Commonwealth of Independent States (CIS-Stat).

[1] The ECE region includes 56 countries, from Europe, North America (Canada and the United States of America) and Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan), and Israel.

[2] Members of the Conference of European Statisticians include the 56 States members of ECE and all member countries of OECD. Brazil, Colombia, Mongolia, South Africa and other countries also participate in the work of the Conference.

6. Given the institutional landscape in the ECE region, effective international coordination and cooperation are crucially important. Many of its activities are undertaken jointly between ECE and its main partners, the Statistical Office of the European Union (Eurostat) and OECD. ECE also coordinates its work with CIS-Stat, the International Monetary Fund and the World Bank and has collaborated well with the Statistics Division of the Department of Economic and Social Affairs of the Secretariat, the regional commissions of the United Nations, in particular the Economic and Social Commission for Asia and the Pacific (ESCAP), and other United Nations agencies, such as the United Nations Population Fund, the United Nations Development Programme and the United Nations Environment Programme. In total, ECE works together with about 25 international partners in various statistical areas.

7. ECE focuses its statistical capacity-building activities on the countries of Eastern Europe, the Caucasus and Central Asia, in close collaboration with partners. Capacity-building efforts include global assessments of national statistical systems, conducted jointly with Eurostat and the European Free Trade Association, training workshops and advisory services in a broad range of statistical areas related to the ongoing statistical work of ECE and areas in which ECE has expertise. The United Nations Development Account project on data and statistics for the Sustainable Development Goals will help to advance the work of national statistical offices in support of monitoring the implementation of the 2030 Agenda for Sustainable Development in the ECE region.

8. The work of the Conference of European Statisticians benefits from the active involvement of experts from member States and international partners in developing guidance on emerging statistical issues that can be applied in countries with different levels of statistical capacity. The recent results of the work of the Conference are described in the following sections.

II. Statistical guidelines and recommendations

9. All ECE statistical guidelines and recommendations are prepared jointly with its main partners and are available on the ECE website,[3] which also includes an online library of training materials.[4] The following are some of the recently issued guidelines that may be of interest to the global statistical community:

(a) The *Guide to Measuring Global Production* includes comprehensive guidance for compilers of national accounts and balance of payments and related economic statistics, as well as for data users, on challenges in the collection, production and analysis of data related to global production arrangements;

(b) The *Guidelines on Statistical Business Registers* contain recommendations for developing and maintaining statistical business registers, increasing the efficiency of statistical production processes and improving comparability of business statistics with business registers. The Wiesbaden Group on Business Registers has submitted a proposal to develop the *Guidelines* into

[3] See www.unece.org/statistics/publications.html.

[4] See www1.unece.org/stat/platform/display/train.

global guidelines for the consideration of the Statistical Commission in 2019 (see E/CN.3/2017/16);

(c) The *Handbook on Measuring Quality of Employment* includes practical recommendations for measuring the quality of employment, which is at the centre of people's lives and well-being, and the continuously changing labour markets;

(d) The publication *Defining and Measuring Circular Migration* contains a proposal for a common international statistical definition of circular migration and an analysis of challenges in measuring the phenomenon and practical applications of the proposed and existing definitions;

(e) The guidelines on *Measuring Change in the Socioeconomic Conditions of Migrants* include a review and recommended indicators for measuring the demographic, educational, economic and social characteristics of migrants and their civic participation;

(f) The *Recommendations on Ageing-related Statistics* aim at supporting countries in improving the availability, accessibility and comparability of statistical data in support of ageing-related policymaking;

(g) The *Indicators of Gender Equality* were developed to better capture the realities of women and men and their roles in society, the economy and the family, in order to formulate and monitor policies and changes and inform the public.

III. Methodological work on emerging issues

A. Value of official statistics

10. Official statistics have played a leading role in public and evidence-based policymaking for decades, but the current challenges faced by statistical experts are perhaps greater than ever before, including the following:

(a) Statistical offices are in fierce competition with the information industry, which provides fast and easy solutions for using data in new and intuitive ways;

(b) Tightening budgets increase the pressure to demonstrate how efficiently statisticians are using public funds to meet the needs of users;

(c) Technological advances raise questions about how effectively statisticians are using them;

(d) New data sources and their uncertainty, complexity, velocity and size are challenging the expertise of statistical offices and changing the statistical production process;

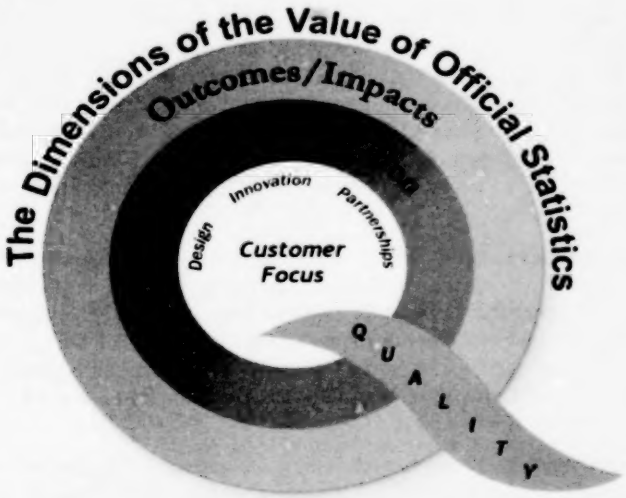
(e) Demand for statistics is rapidly increasing. Monitoring the implementation of the Sustainable Development Goals alone will require producing hundreds of indicators and calls for establishing many new partnerships;

(f) The needs of users are becoming more complex and individualized. The public demands a swift response through products that are integrated into and tailored to their way of life.

11. In view of those developments, the Conference of European Statisticians undertook the challenging task of defining the value of official statistics and developing ways of measurement that would allow the Conference to better understand this value and communicate it to society.

12. A dedicated expert group, chaired by the United Kingdom of Great Britain and Northern Ireland, reviewed the best practices of statistical offices and those of other industries for generating value to users. The cross-industry benchmarking exercise revealed innovative ideas and practices that could be adapted to statistical work. The analysis allowed the expert group to identify the dimensions of the value of official statistics (see fig. I below) and formed the basis for their recommendations on how to increase, promote and measure the value of official statistics.

Figure I



Source: www1.unece.org/stat/platform/x/FQRXBw.

13. The *Recommendations on the Value of Official Statistics* will be issued in the second quarter of 2017 and will include:

(a) Recommendations for statistical offices on how to generate value;

(b) A framework and indicators for measuring the value of official statistics;

(c) Persuasive talking points on the value of official statistics for use in discussions with stakeholders;

(d) A user survey template for measuring the views of users on the value of official statistics;

(e) A companion best practices wiki with more than 200 cases and recommended actions (www1.unece.org/stat/platform/x/FQRXBw).

B. Strengthening legal and institutional frameworks of official statistics

14. Given the importance of legal frameworks to the production of impartial and high-quality official statistics, in the second quarter of 2016, the Conference of European Statisticians launched work to identify the elements of statistical legislation that are common across countries.

15. ECE has a long history and expertise with regard to strengthening legal and institutional frameworks of official statistics, beginning in 1991, when the Fundamental Principles of Official Statistics were first developed. The Principles were subsequently endorsed by the Conference of European Statisticians at its fortieth session. The Statistical Commission adopted the Principles, in 1994, at its special session. In its resolution 68/261 of 29 January 2014, the General Assembly endorsed the Principles at the highest political level.

16. Over the years, ECE has worked with Eurostat and the European Free Trade Association to strengthen institutional frameworks for official statistics, especially in the countries of Eastern Europe, the Caucasus and Central Asia, on the basis of global assessments of national statistical systems. A recent result of those efforts is the generic law on official statistics,[5] developed under the United Nations Development Account project with support from the Statistics Division, guidance that may be valuable to all countries as a reference for developing statistical legislation.

17. Building on that experience, the new initiative of ECE aims at identifying common elements of statistical legislation and developing good practice guidance that is in line with the Fundamental Principles of Official Statistics, the European Statistics Code of Practice and the recommendation of the Council of OECD on good statistical practice. The work is co-chaired by Latvia and the United Kingdom, carried out with the support of Eurostat and the Statistics Division, and has attracted attention and contributions from beyond the ECE region.

18. The work deals with such fundamental issues of statistical production as professional independence, coordination of statistical work, data protection, respondent relationships, access to administrative and private data sources, cooperation with geospatial and other agencies, balance between chargeable services and open data, and the interaction between statistical and other legislation. The aim is to develop, by 2018, practical guidance that can support the global statistical community in modernizing statistical systems, guaranteeing their independence and accountability and ensuring a high quality of statistics and data security.

C. Modernization of official statistics

19. At its forty-seventh session, the Statistical Commission agreed that the progress of the High-level Group for the Modernization of Official Statistics should be reported on regularly (see E/2016/24-E/CN.3/2016/34, chap. I.B, decision 47/103). As a result, an overview of ECE activities relating to the modernization of

[5] Available from www.unece.org/statistics/publications.html.

official statistics was submitted in a separate background paper to the Commission at its forty-eighth session.

20. The High-level Group oversees the development and maintenance of key standards and models supporting statistical modernization, including the Generic Statistical Business Process Model, the Generic Activity Model for Statistical Organizations, the Generic Statistical Information Model and the Common Statistical Production Architecture. The Group was responsible for the first international activities in the area of big data within the official statistics community. However, with the realization that only a few types of official statistics can be produced solely from big data, the focus has now shifted to integrating data from multiple sources, including traditional survey data, administrative data, geospatial information and big data. Further information and other outputs and activities are available from the Group's wiki (www1.unece.org/stat/platform/display/hlgbas).

21. The key outcomes from 2016 included:

(a) Development of modernization maturity models to assist statistical organizations with assessing their level of maturity in modernizing the production of official statistics and a road map to help countries to advance;

(b) Linked open metadata and the development of methods and tools to make key statistical metadata available in computer-friendly formats;

(c) Development and testing of methods and tools for data integration that combine traditional survey data, administrative data, geospatial information and new sources, such as big data;

(d) Guidelines on risk management in statistical organizations;

(e) Reports on areas such as machine learning, next generation data management and methodology architecture;

(f) Generic Activity Model for Statistical Organizations, which describes and defines the activities that take place within a typical statistical organization. It extends and complements the Generic Statistical Business Process Model by adding activities needed to support statistical production;

(g) A new strategic framework setting out priority areas for future work and implementing a new governance structure for ECE modernization activities.

22. The priorities for 2017 are to continue work on developing guidelines on data integration, developing and testing standard data architectures and the further implementation of the Common Statistical Production Architecture.

23. As the global impact of the work of the High-level Group increases, there is a growing demand for capacity-building and awareness-raising activities related to statistical modernization. The focus of the High-level Group is on cutting-edge innovation work. Participation in the activities of the Group is open to all statistical organizations that are willing and able to contribute, and the outputs are made widely available for others to use. Building capacity related to statistical modernization could be achieved through strategic partnerships with other global and regional organizations and initiatives, such as the transformative agenda for official statistics.

D. Measuring human capital

24. The idea of viewing the knowledge and abilities of individuals as an asset, as human capital, can be traced back to the eighteenth century, however, human capital is difficult to define and measure. Policymakers are calling for ways to understand and quantify human capital to better understand what drives economic growth and labour markets. The measurement of human capital also helps to assess the long-term sustainability of a country's development path and to measure the output and productivity of the education sector.

25. Devising a robust methodology for determining the monetary valuation of human capital is especially important, given that studies suggest that human capital is the main component of total capital stock in advanced economies. To respond to growing demand, the Conference of European Statisticians undertook the challenging task of advancing the measurement of human capital. The work was chaired by Norway and carried out in collaboration with OECD and a number of statistical offices and universities. Its objective was to set out the conceptual development of the measurement of human capital, with a particular focus on developing experimental human capital satellite accounts.

26. The work resulted in the *Guide on Measuring Human Capital*,[6] published in 2016. Given the importance of measuring human capital for the global statistical community, the Statistics Division carried out a global consultation of the *Guide*.

27. The *Guide on Measuring Human Capital* shows how to estimate and record human capital in a way that is aligned with the principles of national accounts and comparable across countries. Estimates can either be made by developing a satellite account on education and training or by fully integrating estimates of human capital in the System of National Accounts (SNA) 2008. The *Guide* gives an example demonstrating the impact of human capital on the values of gross domestic product, investment, consumption, savings and net wealth. It also provides practical examples of how human capital has been measured in selected countries.

28. On the basis of the results of the global consultation and the interest of countries, ECE has launched pilot testing of the satellite accounts for education and training in countries with various economic conditions and data availability. This work could lead to the preparation of a more detailed compilation guide for such satellite accounts. Countries outside the ECE region are therefore encouraged to pilot test the human capital measurement and provide input to ECE for advancing the work further.

E. Measurement of poverty

29. In June 2017, the Conference of European Statisticians will dedicate a full day of its plenary session to the measurement of poverty, on the basis of the work carried out by ECE to date. The Conference launched international work to develop guidelines and provide recommendations for improving the international comparability and availability of statistics on poverty, four years ago. International

[6] Available from www.unece.org/index.php?id=44704.

comparability of poverty indicators is of growing importance, and, thus far, approaches to poverty measurement have varied significantly.

30. The Conference of European Statisticians *Guide on Poverty Measurement*, developed by a dedicated expert group, will be published and made available on the ECE website in 2017. The expert group aims at providing guidance on applying various measurement approaches at the national level and improving the international comparability of the measurement of poverty, in terms of definitions, methods and data sources, taking into account the Sustainable Development Goal indicators and the underlying data needs.

31. The outcomes of the work will be valuable for countries beyond the ECE region for use in reporting on the reduction of poverty and inequalities in the context of the Sustainable Development Goals. The *Guide* could be of interest to all members of the Statistical Commission.

F. Business demography and entrepreneurship

32. There is significant interest in statistics on business demography and entrepreneurship for analysis and policy formulation. To fill data gaps and enable richer analysis, in 2016, the Conference of European Statisticians began working jointly with Eurostat and OECD on entrepreneurship statistics.

33. Areas of particular interest include measuring the social and gender dimensions and characteristics of entrepreneurs. There is also particular interest in measuring the performance of entrepreneurs at the sub-national level and their international engagement.

34. Chaired by Austria, the work aims at adding value to statistics by developing new indicators on the basis of existing data. Many indicators can be produced directly from the statistical business register or by linking its information with other sources, such as administrative data, other statistical registers and survey data. The work builds on the previous work of ECE, Eurostat and OECD on statistical business registers and business demography.

35. The objective of the work is to prepare guidelines on how to develop statistical business registers to support the production of statistics on business demography and entrepreneurship, by 2018. Currently, the work is centred on the identification of requirements for the statistical business register that would enable the production of such demographic statistics longitudinally, on an annual or more frequent basis, at sub-national levels, and on developing guidance for linking statistical business registers with information from other data sources, such as trade statistics.

G. Global production and exchange of economic data

36. ECE has long-term experience in addressing the impact of globalization in economic statistics. Since 2007, ECE has developed, jointly with Eurostat and OECD, two guides on the treatment of globalization in national accounts and related statistics. In recent years, the Statistical Commission has launched new initiatives

building on the work accomplished in the measurement of economic globalization in the ECE region.

37. In 2015, ECE released the *Guide to Measuring Global Production*.[7] Given the importance of measuring global production, the Statistics Division carried out a global consultation of the *Guide*, and the Statistical Commission expressed its general appreciation for the guidance provided therein on issues emerging from the implementation of the 2008 SNA.

38. Currently, ECE supports countries in applying the recommendations contained in the *Guide to Measuring Global Production* and advances further work on the issues on its research agenda, which includes organizing regular meetings, with Eurostat and OECD, for sharing experience and good practices in measuring global production.

39. In view of recent challenges in economic statistics, ECE will focus its efforts on operationalizing the national and international exchange of economic data. Data exchange is a promising, and perhaps the only, avenue for achieving a comprehensive insight into the activities of multinational enterprises, global production and international trade. The work will be closely coordinated with the data gaps initiative of the Group of 20 to promote data sharing.

40. National statistical offices have established organizational units that address large and complex enterprises, and such offices are now engaging internationally in this work. ECE hosts a network of experts on data sharing aiming at improving the quality of economic statistics and the efficiency of their production.

IV. Methodological work in support of internationally agreed development goals

A. Statistics for the Sustainable Development Goals

41. Measuring progress in the implementation of the Sustainable Development Goals, adopted by the General Assembly in 2015, poses challenges for national statistical systems worldwide. Measuring the achievement of the Goals will require high-quality, timely and comparable indicators on a large number of issues to allow countries to track progress towards the achievement of the Goals.

42. ECE is working with an expert group, co-chaired by Switzerland and the United States, and jointly with Eurostat and OECD, to develop a road map on statistics for the Sustainable Development Goals. That work will support statistical offices in implementing the Conference of European Statisticians declaration on the role of national statistical offices in measuring and monitoring the Sustainable Development Goals, adopted by the Conference at its sixty-third plenary session, in 2015. In the declaration, the Conference called upon national Governments to support national statistical offices in their key role in measuring and monitoring the implementation of the Sustainable Development Goals at the country level, and recognized the importance of cooperation at the local, national, subregional, regional and global levels in monitoring the Goals; and emphasized the importance

[7] Available from www.unece.org/index.php?id=42106&L=0.

of the efficient coordination of monitoring and reporting with regard to the Sustainable Development Goals at the regional level between relevant international organizations and between international organizations and national statistical offices.

43. The first edition of the road map is planned to be finalized in the second quarter of 2017. It will include recommendations and actions with regard to assessing the readiness of countries to report on the Sustainable Development Goal indicators, criteria for selecting national and regional indicators, the setup of data flows, capacity-building and the communication and dissemination of statistics for the Sustainable Development Goals. The Conference of European Statisticians road map will be in line with the global action plan for sustainable development data, contributing specific actions to the development of statistics for the Goals.

44. A number of countries are setting up online national reporting platforms as a means to provide national statistics for the Sustainable Development Goal indicators. The Conference of European Statisticians has launched work, chaired by Poland, to develop a guide assessing the various reporting options at the national level and describing the key technical features for a national reporting platform. In addition, ECE is setting up a wiki as a repository of information on statistics for the Goals, including a template to assess the availability in a particular country of data with regard to the Sustainable Development Goal indicators.

45. ECE is preparing the first regional expert forum on statistics for the Sustainable Development Goals,[8] to be held from 10 to 12 April 2017, to strengthen coordination, exchange experience, discuss challenges and assess the best way forward with regard to statistics for the Goals.

B. Climate change-related statistics

46. In 2016, ECE informed the Statistical Commission of the new *Recommendations on Climate Change-related Statistics*.[9] The Commission encouraged national statistical systems to invest adequate resources in the development of climate change-related statistics, in particular the underlying environment, energy, agriculture and industry statistics, and environmental-economic accounts.

47. The Commission expressed its appreciation for the work being undertaken by ECE, in particular the efforts to develop a set of climate change-related indicators, and requested the Statistics Division to review and consider it as a basis for the development of a global set of climate change statistics and indicators, applicable to countries at various stages of development.

48. ECE is currently focusing on the implementation of the recommendations and hosts a regular expert forum for producers and users of climate change-related statistics, chaired by Norway. The work is carried out in close collaboration with the Directorate General for Climate Action of the European Commission, the European Environment Agency, Eurostat, the Food and Agriculture Organization of the United

[8] See www.unece.org/statistics/meetings-and-events.html?id=3214#/2017/0/0/.

[9] Available from www.unece.org/stats/publications/ces_climatechange.html.

Nations, the International Energy Agency, the Statistics Division and UNFCCC. The most recent results that may be of interest globally include:[10]

(a) A narrative to explain and demonstrate the value of official statistics for climate change analysis;

(b) A template for developing national road maps to improve official statistics for climate change analysis and reporting on the implementation of the Paris Agreement;

(c) A set of climate change-related indicators to provide internationally comparable data on climate change, its drivers, emissions, impacts, adaptation and mitigation, which is being finalized by an expert group, led by Italy.

49. ECE countries are developing their first national road maps and pilot testing the climate indicator set at the national level. Active collaboration, involving national statistical offices, environment agencies, greenhouse gas inventory compilers and national focal points for UNFCCC and for the Intergovernmental Panel on Climate Change will be important for improving statistics for climate reporting.

C. Statistics for disaster risk reduction

50. In response to the growing demand for data in the context of the Sendai Framework, the Conference of European Statisticians launched work on measuring extreme events and disasters. Official statistics have vast amounts of relevant data, including on population, transport and infrastructure, that could contribute to disaster management and risk reduction, but that are not being used to their full potential.

51. The aim of the work, chaired by Italy, is to clarify the role of official statistics in providing data related to extreme events and disasters and to identify practical steps on how national statistical offices, in coordination with national agencies responsible for disaster management, can support disaster management and risk reduction.

52. In the work, ECE is collaborating closely with the Expert Group on Disaster-related Statistics in Asia and the Pacific of ESCAP, the World Meteorological Organization and the United Nations Office for Disaster Risk Reduction. The Office emphasizes that the close involvement of the statistical community will be crucial for defining the technical data reporting requirements for monitoring the implementation of the Sendai Framework and the related Sustainable Development Goal targets. This will help to ensure that monitoring activities make use of existing data and produce meaningful, internationally comparable results.

53. The work is now focused on identifying where and how statistical offices can be involved in providing data for disaster management and risk reduction and on developing common recommended terminology and definitions for the monitoring of disaster risks, aligned with existing statistical standards. The recommendations

[10] For more information, see www.unece.org/stats/climate.html.

on the measurement of extreme events and disasters are planned to be finalized in 2018.

V. Action to be taken by the Statistical Commission

54. The Commission may wish to comment on:

(a) Ongoing work in the ECE region that would be useful to report to future sessions of the Commission;

(b) Areas in which the outcomes of the work of ECE could be used as a basis for further work globally;

(c) Encouraging countries to pilot test the outcomes of the work of ECE, such as the satellite accounts on education and training and the set of climate change-related indicators, to provide input for developing a global set of indicators;

(d) Work of the High-level Group for the Modernization of Official Statistics of ECE and the implementation of statistical modernization standards and models beyond the ECE region through existing global initiatives;

(e) Synergies and opportunities for exchange of experience across regions.